GSFC JPSS CMO
April 07, 2016
Released

Effective Date: March 31, 2016
Revision C

Joint Polar Satellite System (JPSS) Ground Project
Code 474
474-00448-01-19

Joint Polar Satellite System (JPSS) Algorithm Specification Volume I: Software Requirement Specification (SRS) for the Surface Type

National Aeronautics and
Space Administration

Goddard Space Flight Center
Greenbelt, Maryland

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

Joint Polar Satellite System (JPSS) Algorithm Specification Volume I: Software Requirement Specification (SRS) for the Surface Type JPSS Review/Approval Page

Prepared By:

JPSS Ground System
(Electronic Approvals available online at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm)

Approved By:

Robert M. Morgenstern Date

JPSS Ground Project Mission Systems Engineering Manager
(Electronic Approvals available online at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm)

Approved By:

Daniel S. DeVito Date
JPSS Ground Project Manager
(Electronic Approvals available online at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm)

Goddard Space Flight Center
Greenbelt, Maryland

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

Preface

This document is under JPSS Ground Project configuration control. Once this document is approved, JPSS approved changes are handled in accordance with Class I and Class II change control requirements as described in the JPSS Configuration Management Procedures, and changes to this document shall be made by complete revision.

Any questions should be addressed to:

JPSS Configuration Management Office
NASA/GSFC
Code 474
Greenbelt, MD 20771

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

Change History Log

Revision	Effective Date	Description of Changes (Reference the CCR & CCB/ERB Approve Date)
Rev -	August 8, 2013	This version incorporates 474-CCR-13-1149 which was approved by the JPSS Ground ERB on the effective day shown.
A	Jan 30, 2014	This version incorporates 474-CCR-13-1443 which was approved by JPSS Ground ERB on the effective date shown.
A1	Oct 23, 2014	This version incorporates 474-CCR-14-2091 which was approved by the JPSS Ground ERB for CO10 on the effective date shown.
B	Oct 30, 2014	This version incorporates 474-CCR-14-1721, 474-CCR-14-1741 and 474-CCR-14-1781, 474-CCR-14-2088 which was approved by JPSS Ground ERB on the effective date shown.
C	Mar 31, 2016	This version incorporates 474-CCR-14-2110, 474-CCR-15-2452, 474-CCR-15-2480, 474-CCR-15-2657, and 474-CCR-16-2826 which was approved by JPSS Ground ERB on the effective date shown

.

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

List of TBx Items

TBx	Type	ID	Text	Action
None				

Table of Contents

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

List of Figures

List of Tables

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

1 Introduction

The Joint Polar Satellite System (JPSS) is the National Oceanic and Atmospheric Administration's (NOAA) next-generation operational Earth observation program that acquires and distributes global environmental data primarily from multiple polar-orbiting satellites. The program plays a critical role in NOAA's mission to understand and predict changes in weather, climate, oceans and coasts, and the space environment, which support the Nation's economy and protect lives and property. The first JPSS satellite mission, the Suomi National Polar-orbiting Partnership (S-NPP) satellite, successfully launched in October 2011. S-NPP, along with the legacy NOAA Polar Operational Environmental Satellites (POES), provides continuous environmental observations. Two JPSS satellites will follow S-NPP: JPSS-1, planned for launch in fiscal year (FY) 2017, with JPSS-2 to follow in FY2022.

In addition to the JPSS Program's own satellites operating in the 1330 (±10) Local Time of the Ascending Node (LTAN) orbit, NOAA also leverages mission partner assets for complete global coverage. These partner assets include the Department of Defense (DoD) Defense Meteorological Satellite Program (DMSP) operational weather satellites (in the 1730 - 1930 LTAN orbit), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) Meteorological Operational (Metop) satellites (in the 2130 LTAN orbit) and the Japanese Aerospace Exploration Agency (JAXA) Global Change Observation Mission-Water (GCOM-W) satellite (in the 1330 LTAN orbit). JPSS routes Metop data from McMurdo Station, Antarctica to the EUMETSAT facility in Darmstadt, Germany and EUMETSAT, in turn, provides Metop data to NOAA. For GCOM, JPSS routes the GCOM-W data from Svalbard, Norway through the NOAA Satellite Operations Facility (NSOF) in Suitland, MD, processes GCOM-W data and delivers GCOM-W products to the JPSS users who have JAXA permissions.

Additionally, the JPSS Program provides data acquisition and routing support to the DMSP and the WindSat Coriolis Program. JPSS routes DMSP data from McMurdo Station to the 557th Weather Wing at Offutt Air Force Base in Omaha, NE. After processing, the 557th releases the DMSP data for public consumption over the Internet via the National Geophysical Data Center in Boulder, CO. The JPSS Program provides data routing support to the National Science Foundation (NSF), as well as the National Aeronautics and Space Administration (NASA) Space Communications and Navigation (SCaN)-supported missions, which include the Earth Observing System (EOS). As part of the agreements for the use of McMurdo Station, JPSS provides communications/network services for the NSF between McMurdo Station, Antarctica and Centennial, Colorado.

As a multi-mission ground infrastructure, the JPSS Ground System supports the heterogeneous constellation of the before-mentioned polar-orbiting satellites both within and outside the JPSS Program through a comprehensive set of services as listed in Table 1-1.

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

Table: 1-1 JPSS Ground System Services

Service	Description
Enterprise Management and Ground Operations	Provides mission management, mission operations, ground operations, contingency management and system sustainment
Flight Operations	Provides launch support and early orbit operations, telemetry and commanding, orbital operations, mission data playback, payload support, flight software upgrade, flight vehicle simulation, and disposal at the end of mission life
Data Acquisition	Provides space/ground communications for acquiring mission data
Data Routing	Provides routing of telemetry, mission and/or operations data through JPSS' global data network
Data Product Generation	Provides the processing of mission data to generate and distribute raw, sensor, environmental, and ancillary data products
Data Product Calibration and Validation	Provides calibration and validation of the data products
Field Terminal Support	Provides development and operational support to the Field Terminal customers

1.1 Identification

This SRS provides requirements for Surface Type Environmental Data Record (EDR) products. The general approach taken for the Surface Type EDR is to use the best possible *global* land cover classification at all times. This high accuracy can only be achieved by using a temporal accumulation of Visible Infrared Imaging Radiometer Suite (VIIRS) products. By coupling the Quarterly Surface Types (QST) ancillary data with the current VIIRS Vegetation Index, Snow Cover, and Active Fires, and by providing the current green vegetation fraction, Surface Type EDR can be provided with the highest possible quality, but which is also updated in real-time with actual data. The QST was an Intermediate Product (IP) in S-NPP mission.

1.2 Algorithm Overview

The Surface Type EDR algorithm redelivers the QST data for every VIIRS moderate resolution swath pixel and makes necessary updates, which will be achieved by flagging recent snow, fire, and vegetation cover using information derived from the current VIIRS data of that particular pixel. Another component of the Surface Type EDR is an estimate of current green vegetation fraction for every swath pixel. A summary of the input data for this EDR is listed in Table 3-1.

The VIIRS surface type algorithm consists of two components - one for producing the gridded QST ancillary input and the other for producing the Surface Type EDR. The gridded QST data is produced annually for the earth grid using ancillary data and the past 12 months' VIIRS data. The Surface Type EDR is a redelivery of the QST data for every orbit but is updated for fire, snow, and vegetation cover. The EDR also contains a measure of vegetation fraction for every swath pixel. The processing chains for the VIIRS Surface Type EDR are illustrated in Figure 3-1 and Table 3-1.

1.3 Document Overview

Section	Description
Section 1	Introduction - Provides a brief overview of the JPSS Ground System and the relevant algorithm, as reference material only.
Section 2	Related Documentation - Lists related documents and identifies them as Parent, Applicable, or Information Documents such as, MOAs, MOUs, technical implementation agreements, as well as Data Format specifications. This section also establishes an order of precedence in the event of conflict between two or more documents.

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

Section	Description
Section 3	Algorithm Requirements - Provides a summary of the science requirements for the products covered by this volume.
Appendix A	Requirements Attributes - Provides the mapping of requirements to verification methodology and attributes.

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

2 Related Documentation

The latest JPSS documents can be obtained from URL: https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm. JPSS Project documents have a document number starting with 470, 472 or 474 indicating the governing Configuration Control Board (CCB) (Program, Flight, or Ground) that has the control authority of the document.

2.1 Parent Documents

The following reference document(s) is (are) the Parent Document(s) from which this document has been derived. Any modification to a Parent Document will be reviewed to identify the impact upon this document. In the event of a conflict between a Parent Document and the content of this document, the JPSS Program Configuration Change Board has the final authority for conflict resolution.

Doc. No.	Document Title
470-00067	Joint Polar Satellite System (JPSS) Ground System Requirements Document (GSRD)
470-00067-02	Joint Polar Satellite System (JPSS) Ground System Requirements Document (GSRD), Volume 2 - Science Product Specification
474-00448-01-01	Joint Polar Satellite System (JPSS) Algorithm Specification Volume I: Software Requirements Specification (SRS) for the Common Algorithms

2.2 Applicable Documents

The following document(s) is (are) the Applicable Document(s) from which this document has been derived. Any modification to an Applicable Document will be reviewed to identify the impact upon this document. In the event of conflict between an Applicable Document and the content of this document, the JPSS Program Configuration Change Board has the final authority for conflict resolution.

Doc. No.	Document Title
D0001-M01-S01-024	Joint Polar Satellite System (JPSS) Operational Algorithm Description for VIIRS Surface Type Algorithm Theoretical Basis Document (ATBD)
474-00448-02-19	Joint Polar Satellite System (JPSS) Algorithm Specification Volume II: Data Dictionary for the Surface Type
474-00448-04-19	Joint Polar Satellite System (JPSS) Algorithm Specification Volume IV: Software Requirements Specification Parameter File (SRSPF) for the Surface Type

2.3 Information Documents

The following documents are referenced herein and amplify or clarify the information presented in this document. These documents are not binding on the content of this document.

Doc. No.	Document Title
474-00333	Joint Polar Satellite System (JPSS) Ground System (GS) Architecture Description Document (ADD)
474-00054	Joint Polar Satellite System (JPSS) Ground System (GS) Concept of Operations (ConOps)
470-00041	Joint Polar Satellite System (JPSS) Program Lexicon

Doc. No.	Document Title
474-00448-03-19	Joint Polar Satellite System (JPSS) Algorithm Specification Volume III: Operational Algorithm Description (OAD) for the Surface Type
429-05-02-42	Joint Polar Satellite System (JPSS) Mission Data Format Control Book for NPP
472-00251	Joint Polar Satellite System (JPSS) Mission Data Format Control Book for JPSS-1
474-00448-01-07	Joint Polar Satellite System (JPSS) Algorithm Specification Volume I: Software Requirements Specification (SRS) for Ancillary Data Handling Gridding and Granulation

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

3 Algorithm Requirements

3.1 States and Modes

3.1.1 Normal Mode Performance

SRS.01.19_144 The Surface Type EDR software shall calculate the surface type with a measurement accuracy of 70% correct for 17 surface types.

Rationale: The measurement accuracy was flowed down from the Level 1 and Level 2 documents. Accuracy applies to the global average of all 17 surface types.

Mission Effectivity: JPSS-1, JPSS-2

SRS.01.19_145 The Surface Type EDR software shall calculate surface type from all available upstream EDR and IP data with their available refresh and coverage rates.

Rationale: The global coverage through the available refresh constraint was flowed from Level 1 and Level 2 document.

Mission Effectivity: JPSS-1, JPSS-2

SRS.01.19_259 The Surface Type EDR software shall classify surface type according to the 17 IGBP surface classes.

Rationale: The 17 surface type classification was flowed down from the Level 1 and Level 2 documents and is based on the International Geosphere Biosphere Program (IGBP) classes.

Mission Effectivity: JPSS-1, JPSS-2

SRS.01.19_347 The Surface Type EDR software shall use moderate resolution granulation of the VIIRS Gridded Snow/Ice Cover IP for fallback processing when the VIIRS Snow Cover Fraction EDR input is not available or degraded.

Rationale: The EDR software through its algorithm must generate products using back up data sources to meet the graceful degradation requirement. These degraded products are not required to meet the algorithm performance requirements.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.1.2 Graceful Degradation Mode Performance

Not applicable.

3.2 Algorithm Functional Requirements

3.2.1 Product Production Requirements

Not applicable.

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

3.2.2 Algorithm Science Requirements

SRS.01.19_142 The Surface Type EDR software shall incorporate a computing algorithm provided for the Surface Type.

Rationale: The EDR software through its computing algorithm must produce Surface Type in accordance with the Joint Polar Satellite System (JPSS) Operational Algorithm Description for VIIRS Surface Type Algorithm Theoretical Basis Document (ATBD), (D0001-M01-S01-024).

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.2.3 Algorithm Exception Handling

SRS.01.19_150 The Surface Type EDR software shall set each <FillField> to <FillValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Surface Type (474-00448-04-19) <SurfaceTypeEDR><EDR><fill>.

Rationale: The EDR software through its computing algorithm must fill the Surface Type EDR values based on the established fill conditions to satisfy exclusion and fill conditions.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.3 External Interfaces

3.3.1 Inputs

SRS.01.19_147 The Surface Type EDR software shall incorporate inputs as specified in Table 3-1.

Rationale: The EDR generation software must be able to receive and process the resource interaction items shown in Table 3-1 in order to produce the intended Surface Type products.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.19_348 The Surface Type EDR software shall ingest tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Surface Type (474-00448-02-19).

Rationale: This defines the formats for Lookup Tables, and Processing Coefficients for input into the algorithm module.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

Table 3-1 and Figure 3-1 are best viewed together since they describe the processes governed by this SRS in different ways. The figure diagrams the data flowing into, out of, and within the code governed by this SRS. The table lists these same data interactions as well as all downstream dependencies for outputs from this SRS.

Each row in the table describes a single software interaction - data flowing from one software item to another. The data is listed in the first column. The second and third columns include the short name and mnemonic for the data. Blanks indicate there is no mnemonic. The fourth and fifth columns contain the SRS that generates the data product(s) in the first column, and the SRS

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

that receives those products. The final two columns contain the actual function name in Algorithm Development Library (ADL) that produces those products, and the function that inputs those products. The SRS's titled "Ingest MSD" and "Store/Retrieve" are non-existent SRS's functioning as data handling for the IDPS. The software functions "Store Products" and "Retrieve Products" are similar non-existent functions that operate as IDPS data handling.

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

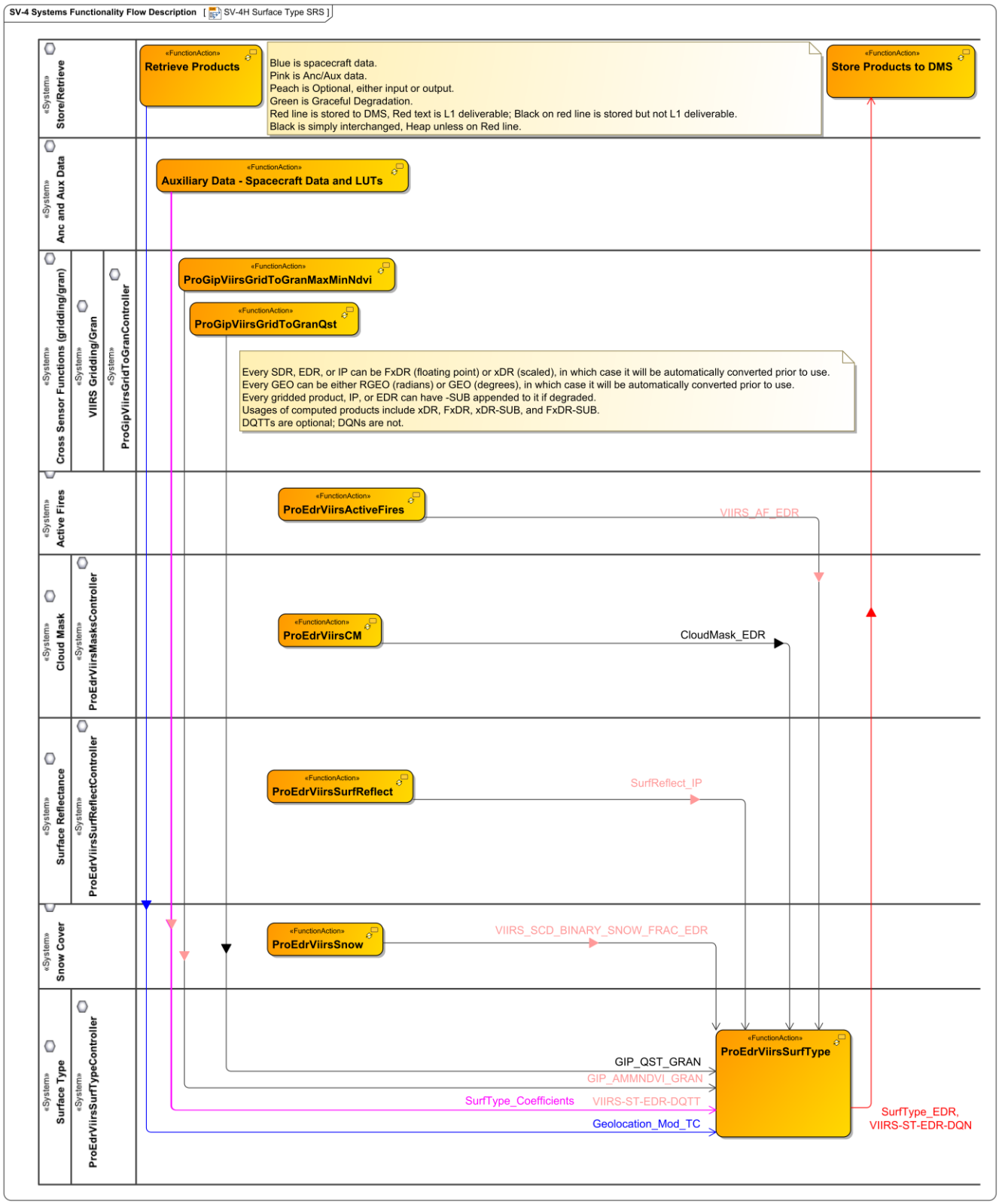

Figure: 3-1 Surface Type EDR Data Flows

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

Table: 3-1 Systems Resource Flow Matrix: Surface Type EDR

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
1	•Geolocation_Mod_TC	•VIIRS-MOD-RGEO-TC	•None	Store/Retrieve (VIIRS SDR)	Surface Type	Retrieve Products	ProEdrViirsSurfType
2	•VIIRS-ST-EDR-DQTT	•VIIRS-ST-EDR-DQTT	•DP_NU-LM2030-000	Anc and Aux Data	Surface Type	Auxiliary Data - Spacecraft Data and LUTs	ProEdrViirsSurfType
3	•SurfType_Coefficients	•VIIRS-ST-EDR-AC	•DP_NU-LM2020-030	Aux and Anc Data	Surface Type	Auxiliary Data - Spacecraft Data and LUTs	ProEdrViirsSurfType
4	•CloudMask_EDR	•VIIRS-CM-EDR	•EDRE-CMIP-C0030	Cloud Mask	Surface Type	ProEdrViirsCM	ProEdrViirsSurfType
5	•GIP_AMMNDVI_GRAN	•VIIRS-GridIP-VIIRS-Ann-Max-Min-Ndvi-Mod-Gran	•None	Grid Gran	Surface Type	ProGipViirsGridToGranMaxMinNdvi	ProEdrViirsSurfType
6	•GIP_QST_GRAN	•VIIRS-GridIP-VIIRS-Qst-Mod-Gran	•None	Grid Gran	Surface Type	ProGipViirsGridToGranQst	ProEdrViirsSurfType
7	•SurfReflect_IP	•VIIRS-Surf-Refl-IP	•IMPI_VISR_R0100	Surface Reflectance	Surface Type	ProEdrViirsSurfReflect	ProEdrViirsSurfType
8	•SurfType_EDRSCALED	•VIIRS-ST-EDR	•EDRE-VSTV-C0030	Surface Type	Land Surface Temperature	ProEdrViirsSurfType	ProEdrViirsLst
9	•VIIRS_AF_EDR	•VIIRS-AF-EDR	•EDRE-VRAF-C0030	Active Fires	Surface Type	ProEdrViirsActiveFires	ProEdrViirsSurfType
10	•VIIRS_SCD_BINARY_SNOW_FRAC_EDR	•VIIRS-SCD-BINARY-SNOW-FRAC-EDR	•EDRE-SNCD-C1030	Snow Cover	Surface Type	ProEdrViirsSnow	ProEdrViirsSurfType
11	•SurfType_EDR •VIIRS-ST-EDR-DQN	•VIIRS-ST-FEDR •VIIRS-ST-EDR-DQN	•EDRE-VSTV-C0030 •DP_NU-L00510-000	Surface Type	Store/Retrieve	ProEdrViirsSurfType	Store Products to DMS

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

3.3.2 Outputs

SRS.01.19_141 The Surface Type EDR software shall generate the Surface Type product in conformance with the XML format file in Attachment A.1 of the JPSS Algorithm Specification Vol II: Data Dictionary for the Surface Type (474-00448-02-19).

Rationale: The product profile must conform to the XML format file.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.19_151 The Surface Type EDR software shall use the terrain-corrected geolocation for the VIIRS M-band.

Rationale: The EDR product must be associated with the terrain-corrected geolocation to meet the geolocation accuracy requirement.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.4 Science Standards

Not applicable.

3.5 Metadata Output

Not applicable.

3.6 Quality Flag Content Requirements

SRS.01.19_148 The Surface Type EDR software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for Surface Type (474-00448-04-19) <SurfaceTypeEDR><EDR><QF>.

Rationale: Quality Flags must be generated based on the established flag conditions, logic, and format.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.7 Data Quality Notification Requirements

SRS.01.19_149 The Surface Type EDR software shall send data quality notifications to the operator according to logic specified in the JPSS Algorithm Specification Vol IV: SRSPF for Surface Type (474-00448-04-19) <SurfaceTypeEDR><EDR><notification>.

Rationale: Notifications must be generated and sent based on the established logic and conditions.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.8 Adaptation

Not applicable.

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.

3.9 Provenance Requirements

Not applicable.

3.10 Computer Software Requirements

Not applicable.

3.11 Software Quality Characteristics

Not applicable.

3.12 Design and Implementation Constraints

SRS.01.19_258 The JPSS Common Ground System shall execute the surface type algorithm.

Rationale: The CGS must incorporate algorithm changes that are supplied by the algorithm vendor.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.13 Personnel Related Requirements

Not applicable.

3.14 Training Requirements

Not applicable.

3.15 Logistics Related requirements

Not applicable.

3.16 Other Requirements

Not applicable.

3.17 Packaging Requirements

Not applicable.

3.18 Precedence and Criticality

Not applicable.

Appendix A. Requirements Attributes

The Requirements Attributes Table lists each requirement with CM-controlled attributes including requirement type, mission effectivity, requirement allocation(s), block start and end, method(s) for verifying each requirement, etc.

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
SRS.01.19_144	The Surface Type EDR software shall calculate the surface type with a measurement accuracy of 70% correct for 17 surface types.	P	EDR	JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Test	NA
SRS.01.19_145	The Surface Type EDR software shall calculate surface type from all available upstream EDR and IP data with their available refresh and coverage rates.	P	EDR	JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Test	NA
SRS.01.19_259	The Surface Type EDR software shall classify surface type according to the 17 IGBP surface classes.	P	EDR	JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Test	NA
SRS.01.19_347	The Surface Type EDR software shall use moderate resolution granulation of the VIIRS Gridded Snow/Ice Cover IP for fallback processing when the VIIRS Snow Cover Fraction EDR input is not available or degraded.	G	EDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.19_142	The Surface Type EDR software shall incorporate a computing algorithm provided for the Surface Type.	Ap	EDR	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA
SRS.01.19_150	The Surface Type EDR software shall set each <FillField> to <FillValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Surface Type (474-00448-04-19) <SurfaceTypeEDR><EDR><fill>.	E	EDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.19_147	The Surface Type EDR software shall incorporate inputs as specified in Table 3-1.	I	EDR	S-NPP JPSS-1	CGS	2.0.0	3.0.0	Inspection	NA

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
				JPSS-2					
SRS.01.19_348	The Surface Type EDR software shall ingest tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Surface Type (474-00448-02-19).	Ft	EDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.19_141	The Surface Type EDR software shall generate the Surface Type product in conformance with the XML format file in Attachment A.1 of the JPSS Algorithm Specification Vol II: Data Dictionary for the Surface Type (474-00448-02-19).	F	EDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.19_151	The Surface Type EDR software shall use the terrain-corrected geolocation for the VIIRS M-band.	Fg	GEO	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.19_148	The Surface Type EDR software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for Surface Type (474-00448-04-19) <SurfaceTypeEDR><EDR><QF>.	Q	EDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.19_149	The Surface Type EDR software shall send data quality notifications to the operator according to logic specified in the JPSS Algorithm Specification Vol IV: SRSPF for Surface Type (474-00448-04-19) <SurfaceTypeEDR><EDR><notification>.	N	EDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.19_258	The JPSS Common Ground System shall execute the surface type algorithm.	Ai	EDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA

Check the JPSS MIS Server at https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm to verify that this is the correct version prior to use.